

September 26, 2001

Jeff Reinhardt
Vogt Valve Company
901 West Magnolia Avenue
Louisville, KY 40208-2225

Re: Registered Construction and Operation Status
019-13923-00092

Dear Mr. Reinhardt:

Vogt Valve Company was issued a registration on June 15, 1998 for a valve manufacturing plant located at Clark Maritime Center, Jeffersonville, IN 47130. A letter requesting a revision was received by the Office of Air Quality on February 19, 2001. The request was made to add three plastic injection molding machines to the plant.

Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the emission source remains classified as registered. This emission source consists of the following facilities:

- (a) Seven (7) cold solvent degreaser tanks for miscellaneous metal parts, using mineral spirits as the solvent, with a total maximum solvent usage rate of 0.193 pounds per hour, designated as CC1-CC7, exhausting to the general ventilation system.
- (b) Three (3) natural gas heat treat furnaces, designated as 1001, 2110 and 2008, with a total maximum heat input capacity of 3.0 million BTU per hour, exhausting to a stack designated as HT-1.
- (c) Three (3) oil quench tanks, with a total maximum oil consumption rate of 110 gallons per year, exhausting to a stack designated as HT-1.
- (d) Twenty-six (26) natural gas space heaters and air-make-up units, with a total heat input capacity of 11.5 million BTU per hour, exhausting to the general ventilation system.
- (e) One (1) phosphate cleaning line consisting of two (2) hydrochloric cleaning tanks, with a total maximum steel throughput of 1.875 units per hour, exhausting to a stack designated as P-1.
- (f) One (1) natural gas fired package boiler, with a maximum heat input capacity of 1.5 million BTU per hour, exhausting to a stack designated as B-1.
- (g) One (1) valve marking paint area utilizing felt tip pens as the application method, a maximum valve throughput of 40 units per hour, a maximum usage rate 0.013 gallons per hour, exhausting to the general ventilation system.

- (h) One (1) welding area, controlled by a dust collector, exhausting to the general ventilation system and consisting of the following equipment:
 - 1. Five (5) MIG stations, with a maximum hourly wire consumption rate per station of 2.0 lb/hr.
 - 2. Six (6) stick stations, with a maximum hourly consumption rate of 1.0 lb/hr.
 - 3. Four (4) TIG stations, with a maximum hourly wire consumption rate per station of 1.0 lb/hr.
- (i) One (1) tool making and sharpening area, controlled by a dust collector, with a maximum steel throughput of 300 lb/hr, a maximum abrasive consumption rate of 2 pounds per hour, exhausting to the general ventilation system.
- (j) One (1) shot blast unit, with a maximum steel throughput of 3000 lb/hr, a maximum steel abrasive consumption rate of 10 lb/hr, controlled by a dust collector, exhausting to the general ventilation system.
- (k) Two (2) above-ground storage tanks, designated as Tank 1 and Tank 2, with a maximum storage capacity of 4500 gallons per tank and a maximum volume of 650 ft³ per tank. Tank 1 stores waste lube oil, Tank 2 stores cutting oil, and both tanks vent directly to the atmosphere.
- (l) Wet machining operations consisting of turning, milling, broaching, threading, drilling, sawing and lapping, utilizing water soluble or cutting oils, with a maximum steel throughput of 6000 lb/hr, and exhausts to the atmosphere.
- (m) Negligible activities venting to the general ventilation system, which include the following:
 - 1. Steel chip collection system;
 - 2. Valve assembly area;
 - 3. Steam-heated waste water sludge dryer unit;
 - 4. Hoist line operation for caustic cleaning and phosphate coating of steel parts;
 - 5. Vibratory deburring machines;
 - 6. Electric Induction heater for steel flanges;
 - 7. Hydrostatic test stations for valve assemblies;
 - 8. Deionized water system utilizing muratic acid and caustic;
 - 9. Air compressors;
 - 10. Air compressor non-contact cooling tower;
 - 11. Electric heat treat furnaces;
 - 12. Cold forging machining operations; and
 - 13. Plastic injection molding machines.

The following conditions shall be applicable:

- 1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- 2. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions from the process operations (welding, tooling, painting, shot blasting, oil quenching, plastic injection molding and cold forging operations) shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

For a process weight rate of 3.0 tons per hour, this equation provides an emission limit of 8.56 pounds per hour. The control devices for the welding operations, tooling operations, and shot blast unit shall be operating properly at all times when a process that each controls is in operation, in order to comply with this limit.

- 3. Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), particulate matter (PM) emissions from the 1.5 million BTU per hour boiler shall not exceed 0.6 pounds per million BTU heat input.
- 4. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control) the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (1) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (2) the solvent is agitated; or
 - (3) the solvent is heated.
 - (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in Condition 5.
 - (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

- (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (1) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (2) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (3) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
5. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (a) Close the cover whenever articles are not being handled in the degreaser.
 - (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

This registration is the second air approval issued to this emission source. All prior approvals are now considered obsolete as they have been included in this registration.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

Any change or modification which may increase the potential pollutant emissions to 25 tons per year or more from the equipment covered in this registration must be approved by the Office of Air Quality (OAQ) before such change may occur.

Sincerely,

Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ARD

cc: File - Clark County
Clark County Health Department
Air Compliance Section Inspector - Joe Foyst
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

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| Registration Annual Notification |
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This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

| | |
|-------------------------------|--------------------------|
| Company Name: | Vogt Valve Company |
| Address: | Clark Maritime Center |
| City: | Jeffersonville, IN 47130 |
| Authorized individual: | |
| Phone #: | |
| Registration #: | 019-13923-00092 |

I hereby certify that Vogt Valve Company is still in operation and is in compliance with the requirements of Registration 019-13923-00092.

| |
|----------------------|
| Name (typed): |
| Title: |
| Signature: |
| Date: |

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

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|--|--|
| Source Name: | Vogt Valve Company |
| Source Location: | Clark Maritime Center, Jeffersonville, IN 47130 |
| County: | Clark |
| SIC Code: | 3491 |
| Operation Permit No.: | 019-9675-00092 |
| Operation Permit Issuance Date: | June 15, 1998 |
| Revision No.: | 019-13923-00092 |
| Permit Reviewer: | Allen R. Davidson |

On February 19, 2001, the Office of Air Quality (OAQ) received an application from Vogt Valve Company relating to the construction and operation of three plastic injection molding machines to their existing valve manufacturing plant.

History

Vogt Valve Company was issued a registration for a valve manufacturing plant on June 15, 1998. This application is the first since that date.

Enforcement Issues

There are no enforcement actions pending against this emission source.

Stack Summary

Stack information will not change as a result of this application.

Recommendation

The staff recommends to the Commissioner that the plant continue to be approved as a registered emission source. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 19, 2001.

Emission Calculations

Emissions from plastic injection molding machines derive from the use of mold release agents. Mold release agents are expressly classifiable as exempt under 326 IAC 2-1.1-3(d)(30). Emissions are assumed to be negligible.

See Appendix A of the TSD for registration 019-9675-00092 for detailed emissions calculations regarding existing facilities.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

The following table reflects the existing source potential to emit. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit:

| Pollutant | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM | 17.2 |
| PM-10 | 17.2 |
| SO ₂ | 0.1 |
| VOC | 1.4 |
| CO | 1.5 |
| NO _x | 7.0 |

| HAP's | Potential To Emit (tons/year) |
|-------|-------------------------------|
| TOTAL | 0.2 |

The potential to emit particulate matter (PM) is less than 25 tons per year, but greater than five tons per year. Therefore, the existing source is classifiable as a registration under 326 IAC 2-5.5.

County Attainment Status

The source is located in Clark County.

| Pollutant | Status |
|-----------------|--------------------------|
| PM-10 | attainment |
| SO ₂ | attainment |
| NO ₂ | attainment |
| Ozone | nonattainment (moderate) |
| CO | attainment |
| Lead | attainment |

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Clark County has been designated as attainment or unclassifiable for ozone. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

Clark County has been classified as attainment or unclassifiable for all other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

This is not a major modification for PSD or Emission Offset because the potential to emit every attainment pollutant is less than the significant levels. Therefore, pursuant to 326 IAC 2-2, 326 IAC 2-3, and 40 CFR 52.21, the PSD and Emission Offset requirements do not apply.

Federal Rule Applicability

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source. 40 CFR Part 60 Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) does not apply to the boiler because the maximum heat input capacity is less than 10 million BTU per hour.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 40 CFR 63) applicable to this source. NESHAP Subpart T is not applicable since the degreasers do not use halogenated solvents.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because:

- (a) Although it is located in Clark County, it does not have the potential to emit more than ten (10) tons per year of volatile organic compounds or nitrogen oxides.
- (b) It does not have the potential to emit more than one hundred (100) tons per year of any other pollutant specified in the rule.

326 IAC 5-1 (Visible Emissions Limitations)

This source is not located within Jeffersonville Township. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-1 (Nonattainment Area Particulate Limitations)

326 IAC 6-1 does not apply to this source. The source does not have the potential to emit PM greater than 100 tons per year, nor does it have actual PM emissions greater than 10 tons/yr.

326 IAC 6-3-2 (Particulate Emissions Limitations)

This source is subject to 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions from the process operations (welding, tooling, painting, shot blasting, oil quenching, plastic injection molding and cold forging operations) shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For a process weight rate of 3.0 tons per hour, this equation provides an emission limit of 8.56 pounds per hour. The control devices for the welding operations, tooling operations, and shot blast unit shall be operating properly at all times when a process that each controls is in operation, in order to comply with this limit.

326 IAC 8-3-2 (Cold Cleaner Operations):

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator of the cold cleaning facility shall:

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operation requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The degreasers do not have remote reservoirs, so 326 IAC 8-3-5 is applicable.

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)),

or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

State Rule Applicability - Injection Molding Machines

326 IAC 8-1-6 (General VOC Reduction Requirements)

This facility is not subject to 326 IAC 8-1-6 (General Reduction Requirements) because the potential to emit volatile organic compounds is less than twenty-five (25) tons per year. Therefore, the BACT (best available control technology) requirements do not apply.

State Rule Applicability - Existing Facilities

See the TSD for registration 019-9675-00092 for rule applicability regarding existing facilities.

Conclusion

The construction and operation of this source shall be subject to the conditions of the attached registration, No 019-13923-00092.